

**PRODUCT** : CAMERA MODULE  
**MODEL NO.** : CS1430-A030SF-E  
**SUPPLIER** : TRULY SEMICONDUCTORS LTD.  
**DATE** : October 26,2007



CERT. No. 946535  
ISO9001  
TL9000

# SPECIFICATION

Revision: 1.1

**CS1430-A030SF-E**

If there is no special request from customer, TRULY SEMICONDUCTORS Co., Ltd will not reserve the tooling of the product under the following conditions:  
1. There is no response from customer in two years after TRULY SEMICONDUCTORS Co., Ltd submit the samples;  
2. There is no order in two years after the latest mass production.  
And correlated data (include quality record) will be reserved one year more after tooling was discarded.

**TRULY SEMICONDUCTORS LTD:      CUSTOMER:**

Quality Assurance Department: \_\_\_\_\_  
Approved by:  
  
Technical Department: \_\_\_\_\_

Approved by:



# CONTENTS

- n MODULE INFORMATION
- n PIN ASSIGNMENT
- n ELECTRICAL CHARACTERISTICS
- n MECHANICAL DRAWING
- n APPEARANCE SPECIFICATION
- n IMAGE SPECIFICATION
- n QA PLAN
- n RELIABILITY SPECIFICATION
- n PACKAGE INFORMATION
- n PRIOR CONSULT MATTER
- n FACTORY CONTACT INFORMATION

WRITTEN BY	CHECKED BY	APPROVED BY
HUANG WEI NA	YAN SI ZHI	LIU TIE NAN

**MODULE INFORMATION**

<b>Module No.</b>		<b>CS1430-A030SF-E</b>
Module Size		38.0mmX38.0mmX23.3mm
Image Quality		≥250 TV LINE
Power supply		DC 4.5V~9V
Sensor		Ov7950
Lens		1/4inch 4Glass+IR
Focus(F.NO)		2.0
View Angle		75°
Object distance		20cm-infinity
Array Size		656 X 492(VGA)
Image Area		4.080mm x 3.102mm
Pixel size		6.0μm x 6.0μm
Scan Mode		Progressive
Output Formats		Analog NTSC
Exposure Time Range		1/60s – 20us
S/N Rate		48db
Dynamic Range		49db
IC Package		CLCC-48
Dark Current		10mW/s at 60°C
Fixed Pattern noise		<0.22% of Vpeak-to-peak
Video signal		1.0Vp-p /composite (75ohms)
Temperature Range	Operating	- 20° C to 70° C
	Storage	-30° C to 80° C
Output mode		CABLE WITH CONNECTOR (Video and power)
Power Consumption		≤110mA @5V
Package		Antistatic Plastic
Application		Visual Phone, Video conferencing, Security and surveillance, Portable security device, Industrial machine monitoring, Process control, PC Multimedia, Video door-bell, automotive rear view system.

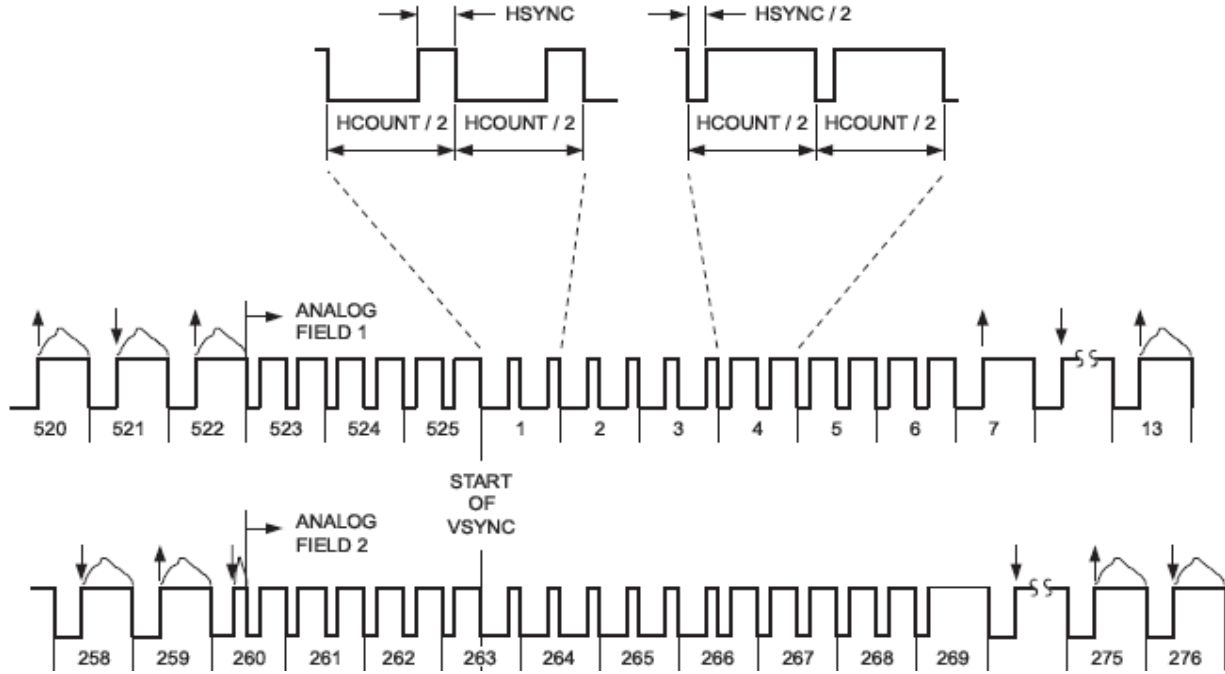
**PIN ASSIGNMENT**

No.	Name	Pin type	Description
1	VIDEO OUTPUT	Analog	Composite video signal output
2	GND	POWER	Ground
3	POWER IN	POWER	Power Supply for module(4.5V~9V)

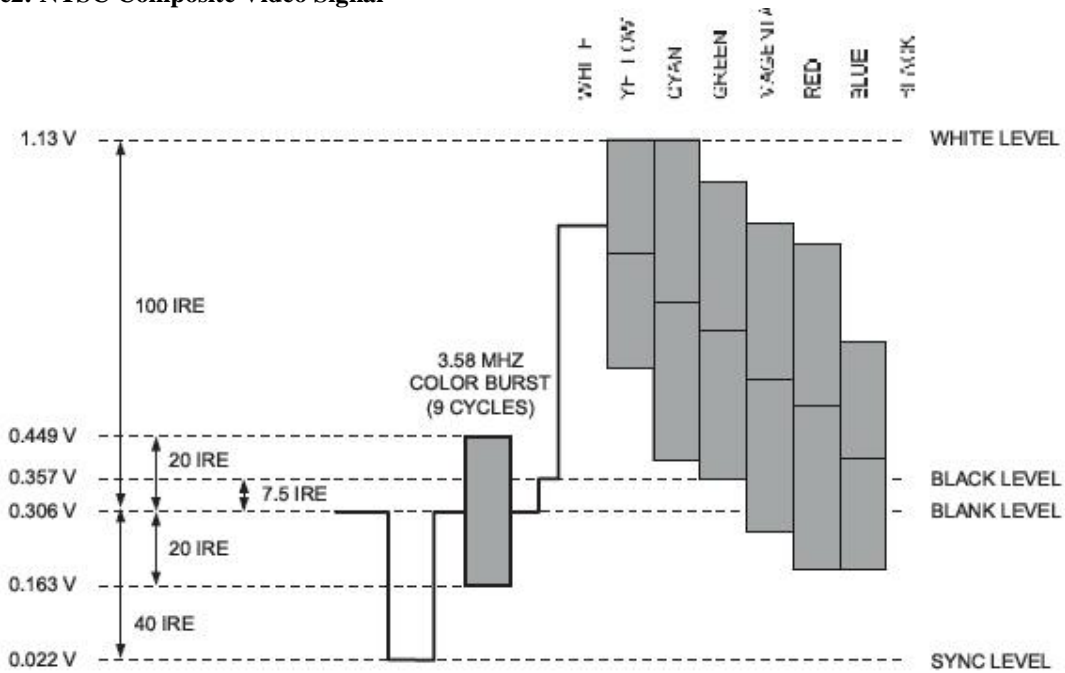
**Electrical Characteristics**

OUTPUT NTSC Timing

**Figuer1: NTSC Standard Video Timing Diagram**



**Figure2: NTSC Composite Video Signal**



**Note: For more information of sensor please refer to the OV7950 specification.**

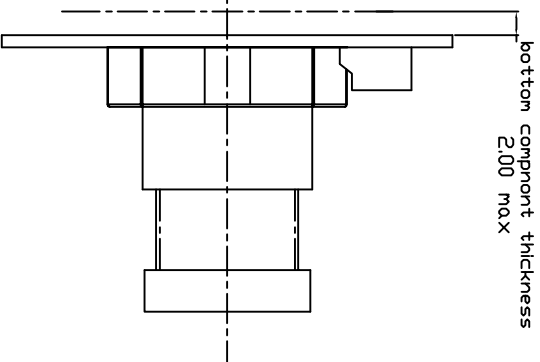
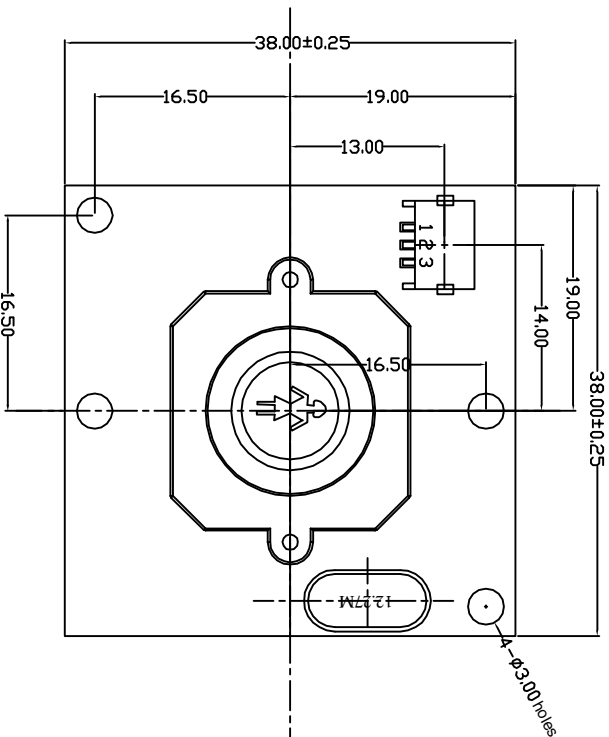
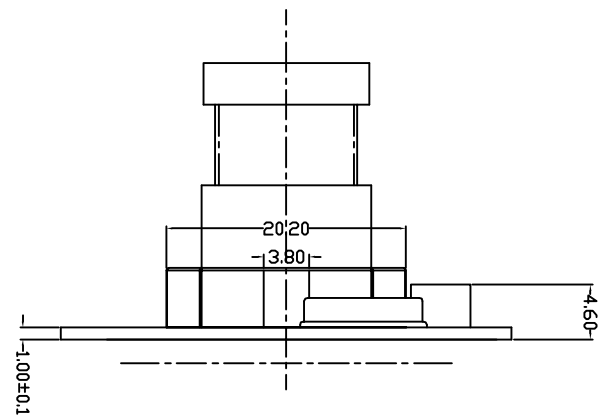
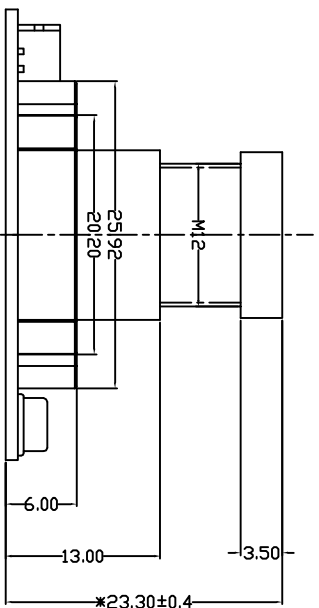
**Mechanical Drawing**

# ROHS

Customer No.:

### 3PIN DESCRIPTION

PIN NO	DESCRIPTION
1	VIDEO OUTPUT
2	GND
3	POWER IN (DC 4.5~9V)



### 主要参数 (Module Specification)

焦距 (F#)	3.6 mm
光圈 (F#)	2.0
视场角 (View Angle)	75°
畸变 (Distortion)	<20%
解像力 (Image Quality)	≥250 TV line
景深 (Focusing Range)	20 cm ~ Infinity
感光芯片 (Chip Type)	OV7950
像素 (Array Size)	0.3M
镜头类型 (Lens Size)	1/4"DCV 4G+IR

### CUSTOMER APPROVE

Mechanical Electrical

### AMEND

ND. NAME QTY Part No. VENDOR

### 确认图

PRODUCT NO. DRAW NO. REV

CS1430-A030SF-E D

D/WN 严思志 2007.09.12 DSN 严思志 2007.09.12

CHKD 徐东超 2007.09.12 APPD 刘铁楠 2007.09.12

ND. CONTENT DATE

修正参数 2007.09.12

### TRULY SEMICONDUCTORS LTD.

PRODUCT NO. DRAW NO. REV

CS1430-A030SF-E D

D/WN 严思志 2007.09.12 DSN 严思志 2007.09.12

CHKD 徐东超 2007.09.12 APPD 刘铁楠 2007.09.12

ND. CONTENT DATE

修正参数 2007.09.12

ND. NAME QTY Part No. VENDOR

### 确认图

PRODUCT NO. DRAW NO. REV

CS1430-A030SF-E D

D/WN 严思志 2007.09.12 DSN 严思志 2007.09.12

CHKD 徐东超 2007.09.12 APPD 刘铁楠 2007.09.12

ND. CONTENT DATE

修正参数 2007.09.12

### TRULY SEMICONDUCTORS LTD.

PRODUCT NO. DRAW NO. REV

CS1430-A030SF-E D

D/WN 严思志 2007.09.12 DSN 严思志 2007.09.12

CHKD 徐东超 2007.09.12 APPD 刘铁楠 2007.09.12

ND. CONTENT DATE

修正参数 2007.09.12

**Image Specification**

NO.	Item	Standard	Important Class
1	TV Line	Center $\geq$ 350 8 point of 0.7 viewing field $\geq$ 250	A
2	Dust	No dust in the center viewing area; Border area according to the limit samples	A
3	Dead pixel	No in the viewing area.	A
4	Distortion	$<$ 20%	B

**QA Plan**

NO.	Item	Sampling frequency	Measure	Remark
Image and reliability item				
1	TV Line	AQL 0.65 II Class	Same as production	100% Inspection
2	Dust	AQL 0.65 II Class	Same as production	100% Inspection
3	Dead pixel	AQL 0.65 II Class	Same as production	100% Inspection
4	Distortion	N=5,c=0 per batch	Same as production	Sampling by QA
Appearance Check Items				
1	Top side of Lens	AQL 1.0 II Class	Same as production	100% Inspection
2	Screw glue	AQL 1.0 II Class	Same as production	100% Inspection
3	L1 Glass	AQL 1.0 II Class	Same as production	100% Inspection
4	Holder	AQL 1.5 II Class	Same as production	100% Inspection
5	Sealed glue	AQL 1.0 II Class	Same as production	100% Inspection
6	FPC/PCB	AQL 1.0 II Class	Same as production	100% Inspection
7	Connector	AQL 1.0 II Class	Same as production	100% Inspection
8	Gold finger	AQL 1.0 II Class	Same as production	100% Inspection
9	Stiffener	AQL 1.5 II Class	Same as production	100% Inspection
10	Double coated tapes	AQL 1.5 II Class	Same as production	100% Inspection
11	Protective film	AQL 1.5 II Class	Same as production	100% Inspection

Sample:

Referenced standard: GB/T 2828.1-2003/ISO 2859-1:1999 and ANSI/ASQC.4-1993 II

**Reliability Specification**

No.	Test item	Test condition
1	Temperature strike cycle [Power off]	Low temperature:-30°C±2°C for 30 min High temperature:+80°C±2°C for 30 min Cycle:10 times
2	High temperature and high humidity operating	Temperature:40°C Humidity:90%RH Time:48 hours
3	High temperature and high humidity storage	Temperature:60°C Humidity:90%RH Time:120 hours
4	Low temperature operating	Temperature:-20°C±2°C Time:120 hours
5	High temperature operating	Temperature:70°C±2°C Time:120 hours
6	Low temperature storage	Temperature:-30°C±2°C Time:120 hours
7	High temperature storage	Temperature:80°C±2°C Time:120 hours
8	ESD test [Power off]	C:150pF R:330Ω Voltage: ±2KV Air discharge: Cycle:10 times
9	Vibration Test [Packaged]	Frequency:10Hz~55Hz~10Hz Amplitude:1.5 mm Times: each X,Y,Z directions for 60mins
10	Dropping test [Packaged]	Product dropping from 150cm height to smooth marble Drop style:1 coner,3 arris,6 faces Test times:10

## Package Specification

### Packaging Design

TBD

### PRIOR CONSULT MATTER

- ①For Truly standard products, we keep the right to change material, process for improving the product property without notice on our customer.
- ②For OEM products, if any change needed which may affect the product property, we will consult with our customer in advance.
2. If you have special requirement about reliability condition, please let us know before you start the test on our samples.

### FACTORY CONTACT INFORMATION

**FACTORY NAME:** TRULY SEMICONDUCTORS LTD.

**FACTORY ADDRESS:** Truly Industrial Area, ShanWei City, GuangDong, China

**FACTORY PHONE:** 86-0660-3380061    **FAX:** 86-0660-3371772